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OSTROLENK , FABER

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WHAT IS CLAIMED IS:

- 1. A surgical heart stimulation system comprising:
- a wire having a proximal end and a distal end, at least part of the distal end being conductive so as to be usable in heart stimulation; and

a surgical pledget for being attached to said distal end of said wire, said surgical pledget being adapted for non-invasively maintaining said distal end in position adjacent the heart.

- 2. The surgical heart stimulation system of claim 1, wherein said distal end of said wire has a wire end structure comprising an irregular or three-dimensional, atraumatic structure adapted for engaging said surgical pledget when secured to the heart, for maintaining said heartwire in position relative to said surgical pledget and thereby relative to the heart.
- 3. The surgical heart stimulation system of claim 2, wherein said end structure comprises at least one of a pigtail, a hook, a tine and a suture sized and shaped for engaging said pledget so as to maintain said heartwire in said position.
- 4. The surgical heart stimulation system of claim 1, wherein said pledget is made of cotton or Teflon.
- 5. The surgical heart stimulation system of claim 1, further comprising a second wire having a corresponding proximal end and distal end; and

attached to the distal end of the second wire, a second wire end structure adapted for non-invasively maintaining said distal end in position adjacent the heart.

6. The surgical heart stimulation system of claim 5, wherein said second wire end structure comprises an irregular or three-dimensional, atraumatic

PAGE 4/11 * RCVD AT 12/16/2004 5:36:41 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-2/0 * DNIS:7465092 * CSID:212 398 0681 * DURATION (mm-ss):03-06

OSTROLENK . FABER

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structure adapted for engaging a surgical pledget secured to the heart, for maintaining said heartwire in position relative to said surgical material.

- 7. The surgical heart stimulation system of claim 6, further comprising a second surgical pledget for being attached to said distal and of said second wire via said second end structure.
- 8. The surgical heart stimulation system of claim 5, wherein said first and second wires are comprised in a bipolar heartwire.
 - 9. An arrangement for stimulating a heart, comprising in combination: a surgical pledget for being secured to the heart; and
- a heartwire comprising a wire having a proximal end and a distal end, at least part of the distal end being conductive so as to be usable in heart stimulation, and having an end structure comprising an irregular or three-dimensional, atraumatic structure adapted for engaging said surgical pledget when secured to the heart, for maintaining said heartwire in position relative to said surgical pledget and thereby relative to the heart;

said surgical pledget being adapted for non-invasively maintaining said distal end in position adjacent the heart.

- 10. The arrangement of claim 9, wherein said end structure comprises at least one of a pigtail, a hook, a tine and a suture sized and shaped for engaging said pledget so as to maintain said heartwire in said position.
- 11. The arrangement of claim 9, further comprising a second wire having a corresponding proximal end and distal end;

attached to the distal end of the second wire, a second end structure adapted for non-invasively maintaining said distal end in position adjacent the heart;



OSTROLENK , FABER

2006

wherein said second end structure comprises an irregular or threedimensional, atraumatic structure adapted for engaging a surgical pledget secured to the heart, for maintaining said heartwire in position relative to said surgical material.

- 12. The arrangement of claim 11, further comprising a second surgical pledget for being secured to the heart for engaging the distal end of the second wire.
- 13. A method of maintaining a heartwire in position relative to a heart for cardiac pacing, comprising the steps of:

securing a surgical pledget to the heart;

providing an irregular or three-dimensional, atraumatic end structure on a pacing end of said heartwire; and

placing said end structure adjacent said surgical pledget, said end structure being adapted for engaging said surgical pledget so as to maintain said heartwire in said position relative to said surgical pledget and thereby relative to said heart.

- 14. The method of claim 13, further comprising the steps of forming said end structure as at least one of a pigtail, a hook, a tine and a suture sized and shaped for engaging said pledget so as to maintain said heartwire in said position; and placing said end structure under said pledget.
- 15. A method of maintaining a pair of heartwires in position relative to a heart for cardiac pacing, comprising the steps of:

securing a pair of surgical pledgets to the heart;

providing irregular or three-dimensional, atraumatic end structures on respective pacing ends of said heartwires; and

placing said end structures adjacent respective ones of said surgical pledgets, said end structures being adapted for engaging said surgical pledgets so



OSTROLENK , FABER

2007

as to maintain said heartwires in said position relative to said surgical pledgets and thereby relative to said heart.

- 16. The method of claim 15, further comprising the steps of forming each of said end structures as at least one of a pigtail, a hook, a tine and a suture sized and shaped for engaging said pledgets so as to maintain said heartwires in said position; and placing said end structures under said pledgets.
- 17. The method of claim 15, wherein said pair of heartwires are comprised in a bipolar heartwire.
- 18. A surgical heart stimulation system, comprising in combination a chest tube and a heartwire secured thereto;

said heartwire comprising a wire having a proximal end and a distal end, at least part of the distal end being conductive so as to be usable in heart stimulation; and further comprising a surgical pledget for being attached to said distal end of said wire, said surgical pledget being adapted for non-invasively maintaining said distal end in position adjacent the heart;

attached to said distal end of said heartwire, an end structure comprising an irregular or three-dimensional, atraumatic structure adapted for engaging said surgical pledget when secured to the heart, for maintaining said heartwire in position relative to said surgical pledget and to said heart.

- 19. The combination of claim 18, wherein said end structure comprises at least one of a pigtail, a hook, a tine and a suture sized and shaped for engaging said pledget so as to maintain said heartwire in said position.
- 20. The combination of claim 18, wherein said heartwire is secured to said chest tube by an elongated structure attached to said chest tube.



OSTROLENK , FABER

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- 21. The combination of claim 20, wherein said elongated structure is a groove formed in a peripheral wall of said chest tube.
- 22. The combination of claim 21, wherein said heartwire is removable from said groove while still maintaining said heartwire in position relative to said surgical pledget and to said heart.
- 23. The combination of claim 22, wherein said groove is covered by a film which encloses said heartwire in said groove and is releasable for removing said heartwire from said groove.
- 24. The combination of claim 20, wherein said elongated structure is attached to a peripheral wall of said chest tube.
- 25. The combination of claim 24, wherein said elongated structure is removable from said chest tube while still maintaining said heartwire in position relative to said surgical pledget and to said heart.
- 26. The combination of claim 20, wherein said heartwire is removable from said elongated structure while still maintaining said heartwire in position relative to said surgical pledget and to said heart.
- 27. The combination of claim 18, wherein said heartwire further comprises a second wire having a proximal end and a distal end, at least part of the distal end being conductive so as to be usable in heart stimulation, and

further comprising a second surgical pledget for being attached to said distal end of said second wire, said second surgical pledget being adapted for non-invasively maintaining said distal end of said second wire in position adjacent the heart;



OSTROLENK , FABER

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attached to said distal end of said second wire, an end structure comprising an irregular or three-dimensional, atraumatic structure adapted for engaging said second surgical pledget when secured to the heart, for maintaining said heartwire in position relative to said second surgical pledget and to said heart.

- 28. The combination of claim 27, wherein said first and second wires are comprised in a bipolar heartwire.
- 29. A surgical method comprising the steps of: securing a surgical pledget to a patient's heart; placing a chest tube and a heartwire secured thereto in the patient's chest cavity;

said heartwire comprising a wire having a proximal end and a distal end, at least part of the distal end being conductive so as to be usable in heart stimulation; and attached to said distal end, an end structure comprising an irregular or three-dimensional, atraumatic structure; and

engaging said end structure with said surgical pledget secured to the heart, for maintaining said heartwire in position relative to said surgical pledget and to said heart.

- 30. The method of claim 29, wherein said heartwire is secured by an elongated structure to said chest tube, and further comprising the step of removing said elongated structure from said chest tube while still maintaining said heartwire in position relative to said surgical pledget and to said heart.
- 31. The method of claim 29, further comprising the step of removing said heartwire from said chest tube while still maintaining said heartwire in position relative to said surgical pledget and to said heart.

OSTROLENK , FABER

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- 32. The method of claim 29, wherein said heartwire is disposed in a groove formed in a peripheral wall of said chest tube, and further comprising the step of removing said heartwire from said groove while still maintaining said heartwire in position relative to said surgical pledget and said heart.
- 33. The method of claim 32, wherein said groove is covered by a film which encloses said heartwire in said groove and is releasable for removing said heartwire from said groove.
- 34. The combination of claim 18, further comprising at least one anesthesia delivery tube attached to said chest tube for delivering post-operative local anesthesia to the chest cavity of the patient.
- 35. The combination of claim 18, further comprising at least one wire attached to said chest tube and usable for carrying cardiac output monitoring signals.
- 36. In combination, a chest tube and a heartwire secured thereto; said heartwire comprising a wire having a proximal end and a distal end, at least part of the distal end being conductive so as to be usable in heart stimulation; and

attached to said distal end, an end structure comprising an irregular or three-dimensional, atraumatic structure adapted for engaging a surgical material secured to the heart, for maintaining said heartwire in position relative to said surgical material and to said heart;

wherein said heartwire is disposed in a groove formed in a peripheral wall of said chest tube.



OSTROLENK , FABER

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- 37. The combination of claim 36, wherein said heartwire is removable from said groove while still maintaining said heartwire in position relative to said surgical material and to said heart.
- 38. The combination of claim 37, wherein said groove is covered by a film which encloses said heartwire in said groove and is releasable for removing said heartwire from said groove.
- 39. In combination, a chest tube and a heartwire secured thereto; said heartwire comprising a wire having a proximal end and a distal end, at least part of the distal end being conductive so as to be usable in heart stimulation; and

said chest tube having a proximal end and a distal end;

said proximal end of said heartwire being secured to the proximal end of said chest tube;

said distal end of said heartwire being free of said distal end of said chest tube for being extendable to a portion of the patient's chest cavity remote from the chest tube.

15/2

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